

MONTHLY WEATHER REVIEW,

MARCH, 1877.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

The present Review for the month of March depends upon all data received from United States and Canadian stations up to the 14th of April. The most noticeable features recorded during March are: the very severe storm No. X and its unusually slow movement along the Atlantic coast; the heavy rains and snows of the Ohio valley, Lower Lakes and Atlantic States; the freshets in the rivers of the Middle and Eastern States; the aurora of the 9th.

BAROMETRIC PRESSURE.

In General.—The general distribution of atmospheric pressure is shown by the isobars upon chart No. II, from which we see that the area of mean highest pressure extends from Florida and South Carolina westward to Texas and Kansas. The lowest mean pressure is at the mouth of the St. Lawrence. This distribution agrees with that of March, 1874, but is the reverse of that of March, 1875-'76. The temperatures during the subsequent April of those years were, in 1874, much below the average, and in 1875 somewhat below, but April, 1876, was colder east of the Alleghanies and warmer to the westward.

Barometric Range.—The greatest barometric ranges have been as follows: 1.51 inches at Malone; 1.49 at Baltimore; 1.48 at Oswego; 1.46 at Philadelphia and Washington. The least ranges have been: San Diego, 0.35; Key West, 0.43; San Francisco, 0.53; Punta Rassa, 0.57; 0.64 at Cheyenne and Indiana; 0.65 at Galveston; 0.73 at Pike's Peak; 0.75 at Salt Lake City. The general range of the barometer for the whole country is best seen by the following table, which gives the maximum and minimum readings at the centres of the respective areas of high and low pressures:

AREA. No.	MAXIMUM BARO- METER IN HIGH AREAS.	MINIMUM BARO- METER IN LOW AREAS.	AREA. No.	MAXIMUM BARO- METER IN HIGH AREAS.	MINIMUM BARO- METER IN LOW AREAS.
I.	30.34	29.07	VII.	30.39	29.35
II.	30.28	29.52	VIII.	30.50	29.75
III.	30.15	29.50	IX.	30.37	29.54
IV.	30.45	29.00	X.	30.14	29.02
V.	30.61	29.76	XI.	30.64	29.62
VI.	30.48	29.15	XII.	30.46	29.20

Areas of High Pressure.—The areas of high barometer have not been remarkable either for geographical extent or high central pressure. A very considerable amount of cold air has existed north of our stations, and to its somewhat unusual extent southward seems to be attributable the large number of storms that have pursued their courses eastward over the Ohio valley.

In detail, the areas of high pressure were as follows:

No. I.—Central on the 1st at 7:35 a. m. in Virginia and continued stretching along the Atlantic coast during the 2nd.

No. II.—Represents an accumulation of air along the East Atlantic coast due to the in-draught from the eastward, attending low barometer No. I, which was then over the Lake region.

No. III.—Originated in the southerly winds drawn northward over the Southern States on the 2nd and 3rd, while low barometer No. II was developing in Missouri.

No. IV.—Is the high barometer that followed low No. II. It extended from the Pacific coast eastward over the greater portion of the Southwest, and was central in Arkansas at 7:35 a. m. of the 4th. Its boundary continued extending eastward while the central highest pressures were, at 7:35 a. m. of the 5th,